Wilcox & Barton INC.
ENVIRONMENTAL AND CIVIL ENGINEERING

August 5, 2016

Mr. James Duane
Assistant Town Manager
Town of Framingham
150 Concord Street
Framingham, Massachusetts 01702

RE: Phase II Limited Site Investigation
Millwood Golf Course
175 Millwood Street, 818 Grove Street
Framingham, Massachusetts

Dear Mr. Duane:

Wilcox & Barton, Inc. is pleased to present this proposal to conduct a Phase II Limited Site Investigation (LSI) at the above-referenced property. The purpose of the assessment is to evaluate the *recognized environmental conditions* (RECs) identified in the Phase I Environmental Site Assessment (ESA) report dated August 4, 2016. A summary of the RECs is provided below.

1. Historical release of petroleum products at the subject property. An estimated 30 gallons of Mineral Oil Dielectric Fluid were released when a pole-mounted transformer crashed to the ground during a storm. The spill was remediated and achieved Massachusetts Department of Environmental Protection (MassDEP) regulatory closure with a Class A1 Response Action Outcome Report for Release Tracking Number 3-31800. This historical recognized environmental condition (HREC) does not warrant further investigation.
2. Current and historical underground storage of petroleum at the subject property. Town of Framingham Fire Department files indicate that the Millwood Golf Course is approved to store up to 1,000 gallons of gasoline. A 300-gallon single-walled steel gasoline underground storage tank (UST) installed in 1968 was removed in 1996. No documentation of a tank closure assessment was available. In July 1996, two 500-gallon double-walled fiberglass USTs were installed in the same location. The USTs are used for the storage of gasoline and diesel fuel. Current and historical underground storage of petroleum products at the subject property is a REC.
3. Historical presence of a municipal solid waste landfill at the subject property. According to our environmental database review, the Framingham Millwood Street Landfill was located on the subject property, with an "inactive year" of 1968. The Town of Framingham Department of Public Works and Health Department did not have any information or files regarding the presence of a landfill. According to the MassDEP Northeast Regional Office Solid Waste Program there is a one-line entry in the MassDEP database indicating the Millwood Street landfill was inactive in 1968. No other records or documentation were available from MassDEP. The presence of a former solid waste landfill at the subject property is a REC.

4. Historical and current storage of waste oil at the subject property. Waste oil was observed to be improperly stored behind the northern maintenance garage building. Soil staining observed in and around the outdoor drum storage area indicates potential release. Improper storage of waste oil at the subject property is considered a REC.
5. Out-of-use storage tank, below grade piping, and heating system at the subject property. One 275-gallon aboveground storage tank is located in an open basement area of an unused structure and is no longer in service. The copper fuel line extends under the dirt floor to a defunct heating system. It is unknown if the tank and/or piping contains fuel oil. The presence of the relict tank and conduit beneath the dirt floor is considered a REC.
6. Presence of coal bin and coal in basement of a residential building at the subject property. A coal bin with residual coal is located in the northwest corner of Residential Building 1. The presence of the coal and the historical use of coal as a residential heating fuel is a *de minimis* condition that does not warrant further assessment.

2.0 SCOPE OF WORK - PHASE II ENVIRONMENTAL SITE ASSESSMENT

The proposed Phase II LSI includes an environmental assessment and a limited subsurface investigation to evaluate soil and groundwater conditions. The scope of work presented below has been developed to address the RECs summarized above.

2.1 Additional Research for Landfill

Wilcox & Barton, Inc. will perform supplemental research at the Town of Framingham municipal offices and Framingham Historical Commission to evaluate whether documentation exists with respect to the MassDEP database reference to the Framingham Millwood Street Landfill - - inactive 1968. If evidence of a landfill is found, we will provide recommendations with respect to supplemental characterization of the nature and extent of the landfill.

2.2 Access Agreement

Wilcox & Barton, Inc. will work with Town staff and Mr. James Drake, of the Millwood Golf Course, to coordinate an agreement for access to conduct soil and groundwater testing at the subject site. It is our understanding that the assessment will be performed on behalf of the Town. The results of the proposed sampling program may identify a MassDEP Massachusetts Contingency Plan (MCP; 310 CMR 40.0000) reportable condition. The reportable condition would typically apply to the current owner. We will coordinate with the Town and current property owner with respect to the regulatory requirements resulting from the sampling program.

2.3 Soil Boring and Monitoring Well Installation

Wilcox and Barton, Inc. will visit the site and pre-mark the proposed test boring and monitoring well locations. Wilcox & Barton, Inc. will coordinate with the drilling contractor and ensure that Dig-Safe has cleared the drilling areas prior to initiating soil intrusive activities.

A site-specific Health and Safety Plan will be prepared in accordance with the requirements of Occupational Safety and Health Administration (OSHA) regulations found at 29 CFR 1910.120.

The plan will include a narrative description of the subsurface investigation, chemical routes of exposure, personnel protection, and monitoring devices and frequency. The plan will also include a list of emergency telephone numbers and a map depicting the route to the nearest medical facility.

A total of six test borings will be advanced and three monitoring wells installed by a Massachusetts-certified drilling company. Borings will be advanced using a GeoProbe™ rig. During test boring advancement, soil samples will be collected from the borings, classified using a modified Burmister Classification System, and screened for the presence of volatile vapors using a photoionization detector (PID). One soil sample will be collected using hand tools from the area of the out-of-service heating oil AST in the basement with a dirt floor.

Two of the soil borings will be advanced to a maximum depth of 20 feet in the vicinity of the existing diesel fuel and gasoline USTs to evaluate conditions in the area of the former 300-gallon UST and current UST system. The two test borings will be completed as 2-inch diameter PVC monitoring wells, with well screens intercepting the overburden water table. The monitoring wells will be completed with flush-mounted road boxes set in concrete, and developed until groundwater flows with a consistent visually clarity, or for a maximum of one hour.

Four soil borings will be advanced in the vicinity of the waste oil storage area to delineate the nature and extent of potential waste oil contamination. One boring will be advanced to a maximum depth of 20 feet and will be completed as a 2-inch diameter PVC monitoring well. Three shallow borings will be installed in the waste oil storage area. In each of the four borings, soil samples will be collected in the 0 to 2 foot and 2 to 4 foot intervals to evaluate the vertical extent of petroleum staining and potential petroleum contamination. If field screening indicates elevated levels of volatile organic compounds (VOCs), then the shallow borings may be extended to a deeper interval.

Summary of Proposed Soil Sampling Program		
Number of Soil Borings	**Gasoline UST area**	Soil Analytical Program
2 Borings (max. 20 fbg) sampled at water table	2 Monitoring Wells	2 VPH 2 EPH
Waste Oil Storage Area		
4 Borings	1 Monitoring Well	
0 – 2 fbg	Primary samples	4 EPH, VPH, Metals, PCBs
0 – 4 fbg	Secondary samples	4 EPH, VPH, Metals, PCBs
Out-of-service Fuel Oil AST		
0-1 fbg (hand tools)	0 Monitoring Well	1 EPH
Notes: fbg: Feet below grade VPH: volatile petroleum hydrocarbons by MassDEP Method EPH: extractable petroleum hydrocarbons by MassDEP Method Metals: CAM 14 total Metals PCBs: Polychlorinated biphenyls by EPA Method 8082		

Wilcox & Barton will coordinate with our laboratory subcontractor to "hold" the deeper samples collected from the borings in waste oil storage area. The deeper (secondary) samples will only be analyzed for parameters detected in the shallow (0 to 2 fbg) interval at that location.

2.4 Groundwater Sampling and Analysis and Survey

Approximately one week following monitoring well installation, groundwater samples will be collected from the 3 monitoring wells using the low-flow sampling methodology. We will survey the elevations of the monitoring wells relative to an arbitrary on-site datum using standard leveling and stadia techniques. Survey data will be used as the basis to locate monitoring wells, calculate groundwater flow direction and gradient, and support site plan preparation. Groundwater samples collected from the three monitoring wells will be analyzed for VPH and EPH by the MassDEP Methods.

2.5 Phase II Limited Site Investigation Report Preparation

Wilcox & Barton, Inc. will prepare a report summarizing the findings of the investigation. Results will be presented in tables and on figures. Recommendations concerning additional investigation, regulatory reporting, and potential remedial and/or compliance actions will be included in the report.

The results of the proposed sampling program may indicate a MassDEP MCP reportable condition. The reportable condition would typically apply to the current owner and operator. We will coordinate with the Town with respect to the regulatory requirements resulting from the sampling program. Licensed Site Professional services may be provided following approval of a supplemental scope of work.

3.0 SCHEDULE

Please review, sign, and return the attached Customer Acceptance, which will serve as our contract. Upon receipt of a signed contract, Wilcox & Barton, Inc. will schedule the work immediately and begin coordination for access to the property. The Phase II ESA Report will be submitted within three weeks of receiving the final analytical data from the laboratory. If an MCP reportable condition is identified, we will communicate that to the Town of Framingham within 24-hours.